



Improvement in Care for Patients with Medically Unexplained Symptoms (MUS)

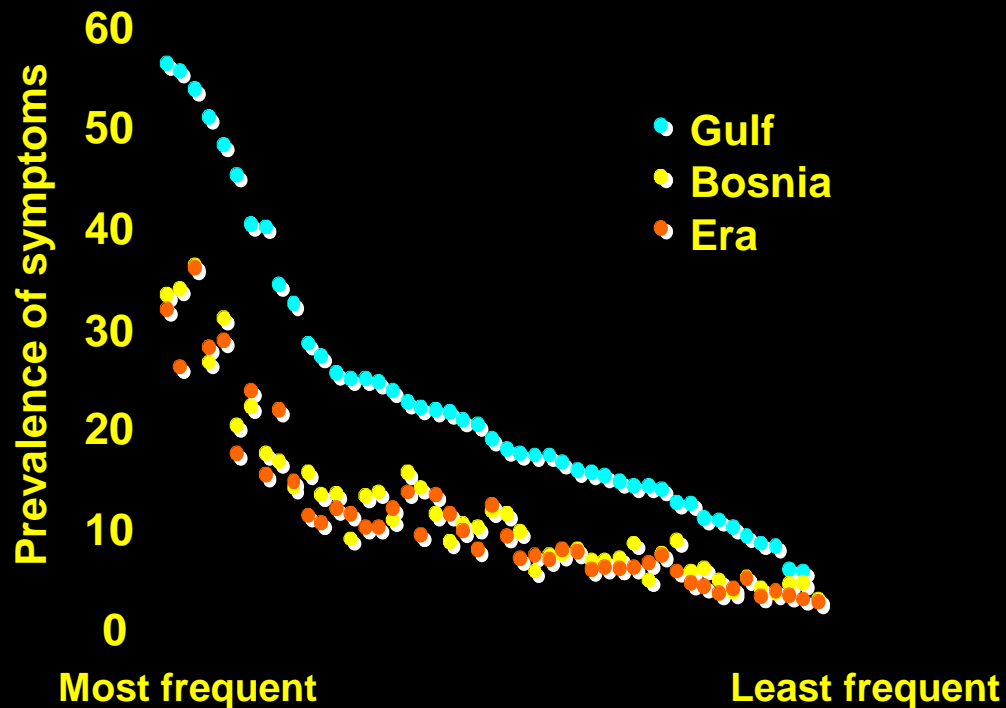
*COL Charles C. Engel, Jr., MD, MPH
Director, Deployment Health
Clinical Center*

Presentation Objectives



- ★ Review the patient assessment process described in the DoD/VA Clinical Practice Guideline for Management of Medically Unexplained Symptoms (MUS-CPG)
- ★ Discuss non-pharmacologic and pharmacologic therapies for MUS
- ★ Identify tools that have been developed to support the MUS-CPG

Comparison of Rates of Physical Symptoms in Veterans



Wessely, Lancet 16 Jan 1999

Post-War & Post-Deployment Syndromes

A Unique Phenomenon?



- ★ "Poorly understood war syndromes have been associated with armed conflicts since at least the US Civil War."
- ★ "...war syndromes have involved fundamental, unanswered questions about the importance of chronic somatic symptoms..."

Gulf War Syndrome

Agent Orange
PTSD
Battle fatigue
Neurocirculatory asthenia
Shell shock
Effort syndrome
Da Costa's syndrome
Soldier's heart

Unexplained Physical Symptoms

Medicine's "Dirty Little Secret"



Specialty	Clinical Syndrome
Orthopedics	Low Back Pain Patellofemoral Syndrome
Gynecology	Chronic Pelvic Pain Premenstrual Syndrome
ENT	Idiopathic Tinnitus
Neurology	Idiopathic Dizziness Chronic Headache
Urology	Chronic Prostatitis Interstitial Cystitis Urethral Syndrome
Anesthesiology	Chronic Pain Syndromes
Cardiology	Atypical Chest Pain Idiopathic Syncope Mitral Valve Prolapse
Pulmonary	Hyperventilation Syndrome
Endocrinology	Hypoglycemia

Specialty	Clinical Syndrome
Dentistry Disorder	Temporomandibular
Rheumatology	Fibromyalgia Myofascial Syndrome Silicosis
Internal Medicine	Chronic Fatigue Syndrome
Infectious Disease	Chronic Lyme Chronic Epstein-Barr Virus Chronic Brucellosis Chronic Candidiasis
Gastroenterology	Irritable Bowel Syndrome Gastroesophageal Reflux
Physical Medicine	Mild Closed Head Injury
Occupational Medicine	Multiple Chemical Sensitivity Sick Building Syndrome
Military Medicine	Gulf War Syndrome
Psychiatry	Somatoform Disorders

Why Focus On Post-Deployment Health Care?

...because our workplace
may be hazardous to health

History Made Overly Simple

Before Vietnam
Life & Limb

After Vietnam
Agent Orange
Post Traumatic Stress Disorder

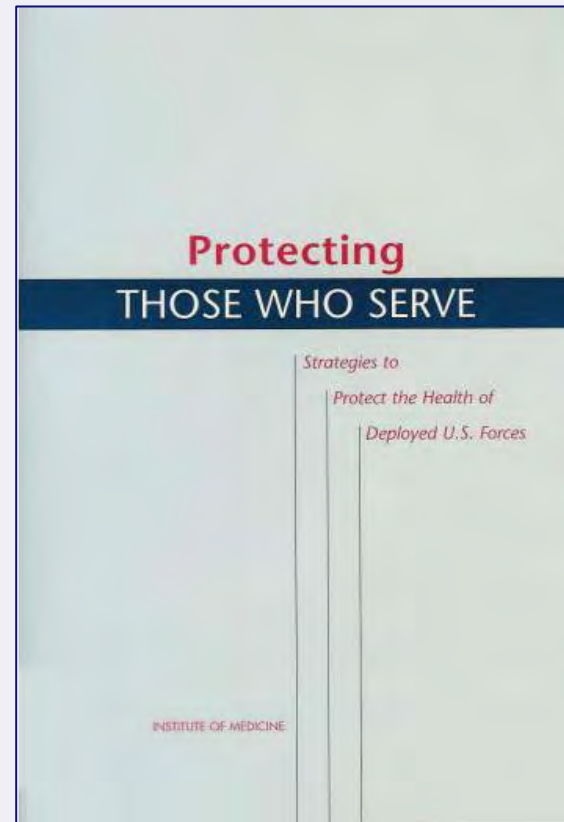
After Gulf War
Toxic Exposure Concerns
Medically Unexplained Symptoms



Institute of Medicine Report



★ Strategy 5: “Implement strategies to address medically unexplained physical symptoms in populations that have been deployed.”



WA, DC, National Academy Press; 2000

VA/DoD Medically Unexplained Symptoms Clinical Practice Guideline



VA/DoD CLINICAL PRACTICE GUIDELINE FOR THE MANAGEMENT OF MEDICALLY UNEXPLAINED SYMPTOMS (MUS): CHRONIC PAIN AND FATIGUE Guideline Summary

PRIMARY CARE

GUIDELINE SUMMARY

- Establish that the patient has MUS.
- Obtain a thorough medical history, physical examination, and medical record review.
- Minimize low yield diagnostic testing.
- Identify treatable cause (conditions) for the patient's symptoms.
- Determine if the patient can be classified as Chronic Multi-Symptom Illness (CMI) (i.e., has two or more symptoms clusters: pain, fatigue, cognitive dysfunction, or sleep disturbance).
- Negotiate treatment options and establish collaboration with the patient.
- Provide appropriate patient and family education.
- Maximize the use of non-pharmacologic therapies:
 - Graded aerobic exercise with close monitoring.
 - Cognitive behavioral therapy (CBT)
- Empower patients to take an active role in their recovery.

Definition of Medically Unexplained Symptoms



- ★ Symptoms that remain unexplained after an appropriate medical assessment that includes focused diagnostic testing
 - Highly recommended that ≥ 2 visits be completed before concluding that the patient does not have a recognizable illness or injury
 - May have been given one or more diagnoses that lack a well-defined disease explanation (e.g., idiopathic chronic fatigue, burning semen syndrome, diffuse pain syndrome, dysautonomia, hypoglycemia, multiple chemical sensitivities)

Areas of Assessment

★ Basic Assessment

- Initial medical record review
- Medical history and psychosocial assessment
- Review of systems
- Physical and mental status examinations
- Routine testing

★ Medical Record

★ Urgent

★ Symptom

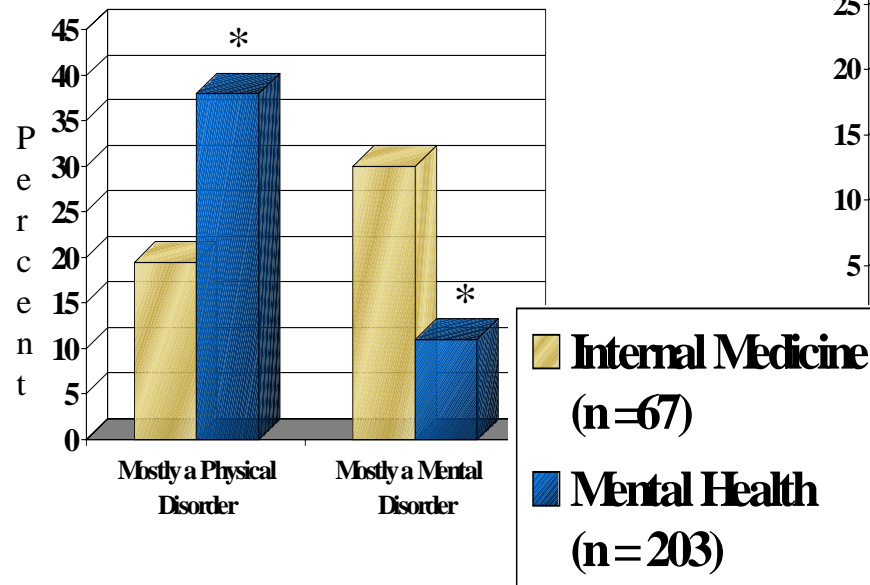
★ Disease

★ Symptom-Based Condition

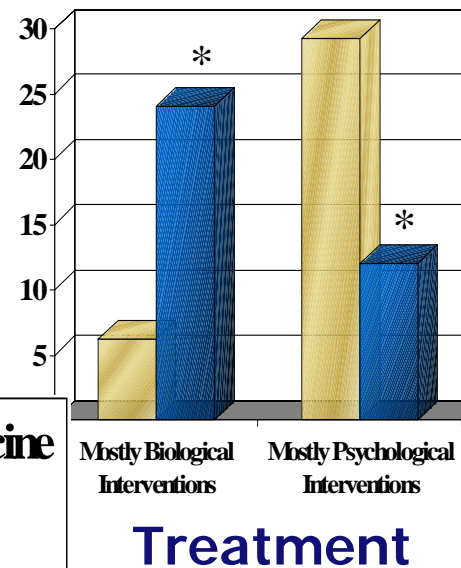
Differing Perspectives on "Persian Gulf Illness"

Cause

Rate the degree to which you believe
"Persian Gulf Illness" is:



Rate the degree to which you believe
"Persian Gulf Illness," in general,
is most effectively treated by:



Medical Record Assessment



- ★ Most unexplained symptoms have been previously assessed
- ★ Careful record review can
 - Prevent unnecessary diagnostic testing
 - Improve understanding of course and impact

Urgent Condition Assessment



★ Examples from the Guideline

- Suicidal ideation or psychosis
- Objective evidence of joint swelling
- Fever
- Significant weight loss
- Focal neurological examination findings
- Severe anemia

Diagnostic Testing



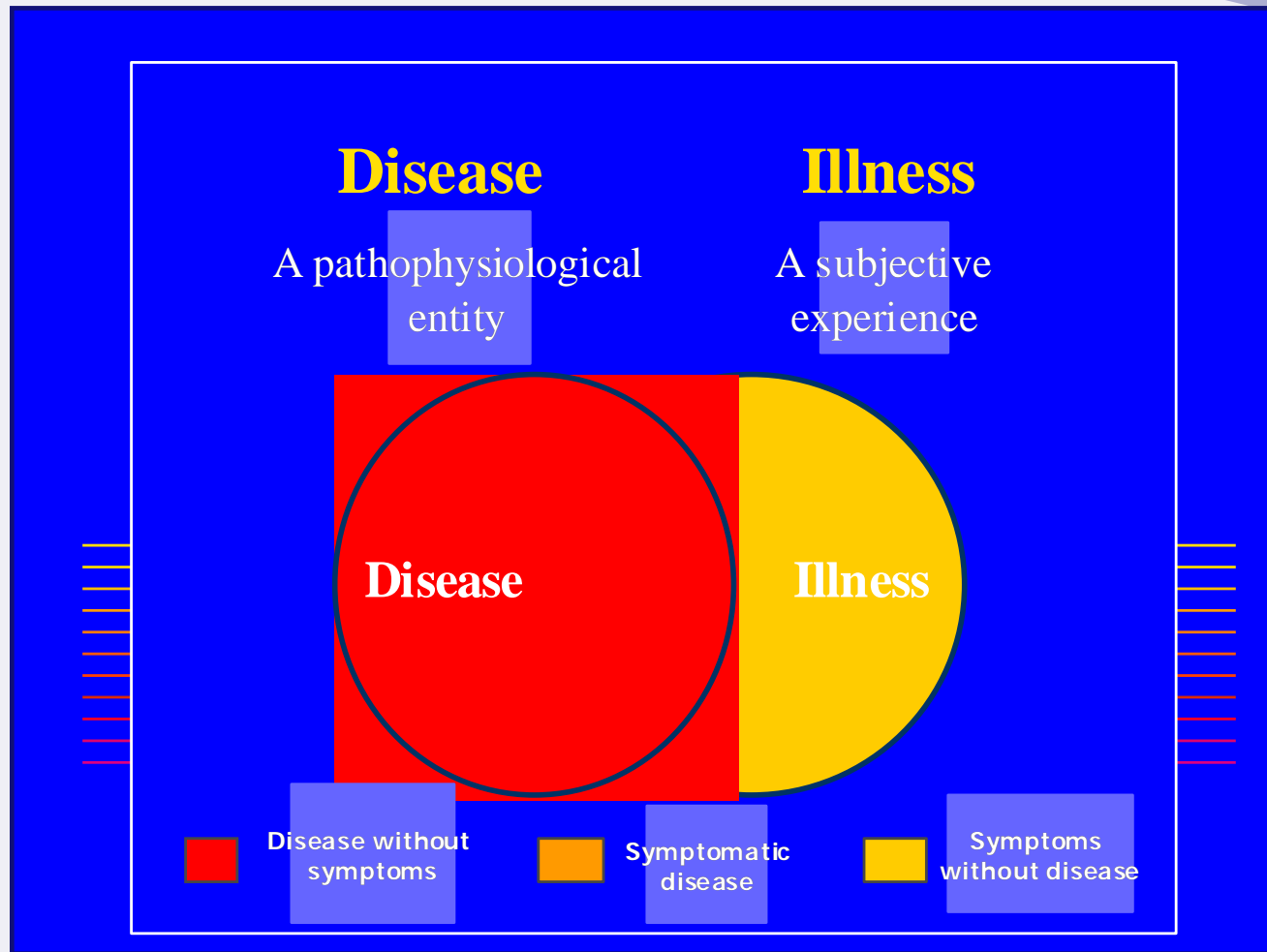
★ Basic Lab Tests

- CBC
- Electrolytes
- BUN
- Creatinine
- Glucose
- Calcium
- Phosphate
- Liver function tests
- Total protein
- Thyroid Stimulating Hormone
- ESR
- Urinalysis

★ Tests Only Indicated When Clinical Suspicion Is High

- Serological testing (Epstein Barr virus, Lyme disease, immunologic testing)
- Neuroimaging

Relationship of Disease and Illness



Symptom Assessment

- ★ Duration
- ★ Onset
- ★ Location
- ★ Co-morbidity
- ★ Previous episode
- ★ Intensity and impact
- ★ Previous treatment and medications
- ★ Past medical, surgical, and psychological history
- ★ Patient perception of symptoms

BATHE Technique

- ★ Provides a time-efficient way to address the impact of patients' symptoms on their level of function
 - **B**ackground: "What is going on in your life?"
 - **A**ffect: "How do you feel about it?"
 - **T**rouble: "What troubles you the most about the situation?"
 - **H**andle: "What helps you handle that?"
 - **E**mpathy: "This is a tough situation to be in. Anybody would feel (down, stressed, etc.). Your reaction makes sense to me."

Standardized Assessment and Reassessment of Symptoms



- ★ **For pain:** "On a scale of 0 to 10, where 0 means no pain and 10 equals the worst possible pain, what is your current pain level?"
- ★ **For symptoms other than pain:** "On a 0 to 10 scale 0 being no (insert SYMPTOM) and 10 being as bad as you can imagine, what number would you say your (insert SYMPTOM) has been over the past week?"
- ★ **For symptom impact:** "During the past week, how much have your symptoms interfered with your usual work, school or social activities, 0 being does not interfere at all and 10 being completely interferes?"

Disease Assessment



- ★ Mood disorders
- ★ Anxiety disorders
- ★ Substance use disorders
- ★ Sleep apnea or other sleep disorder
- ★ Multisystem diseases (e.g., Multiple sclerosis, Myasthenia gravis, rheumatologic diseases)

Symptom-Based Condition Assessment

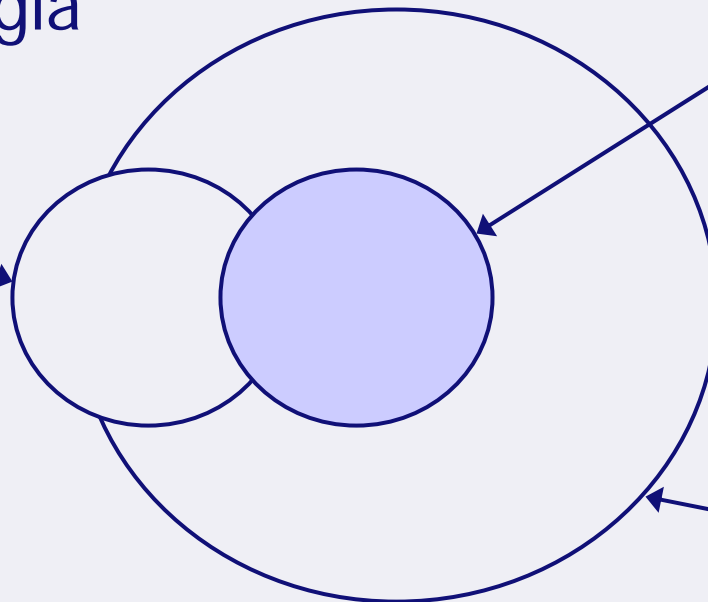


★ Chronic multisymptom illness (CMI)

★ Chronic fatigue syndrome (CFS)

★ Fibromyalgia

Fibromyalgia:
1-2% of
population
defined
by widespread
pain and
tenderness



Chronic Fatigue
Syndrome: 1% of
population; fatigue
and 4/8 "minor
criteria"

Multiple Unexplained
Symptoms – no organic
findings

Chronic Multi-Symptom Illness



- ★ Two or more of the following
 - Widespread pain
 - Persistent fatigue (not transient tiredness)
 - Cognitive dysfunction (forgetfulness, memory disturbance, problems with concentration)
- ★ Often various associated symptoms
- ★ Associated disability

Chronic Fatigue Syndrome



★ Clinically evaluated, unexplained, persistent or relapsing fatigue that is of new or definite onset; is not the result of ongoing exertion; is not alleviated by rest; and results in substantial reduction in previous levels of occupational, educational, social, or personal activities,

and

(CDC 1994 Fukuda et al.)

Chronic Fatigue Syndrome (cont.)



- ★ Four or more of the following symptoms that persist or reoccur during six or more consecutive months of illness and do not predate the fatigue:
 - Self-reported impairment in short term memory or concentration
 - Sore throat
 - Tender cervical or axillary nodes
 - Muscle pain
 - Multi-joint pain without redness or swelling
 - Headaches of a new pattern or severity
 - Unrefreshing sleep (i.e., waking up feeling unrefreshed)
 - Post-exertional malaise lasting >24 hours

(CDC 1994 Fukuda et al.)

Fibromyalgia Syndrome



- ★ History of widespread pain involving all four quadrants of the body and the axial skeletal and
- ★ Tenderness to digital palpation (9 lb/4 kg pressure) of at least 11 of 18 specifically identified trigger points

(ACR 1990 Wolfe et al.)

Summary of Areas of Assessment



★ Basic Assessment

- Initial medical record review
- Medical history and psychosocial assessment
- Review of systems
- Physical and mental status examinations
- Routine testing

★ Medical Record

★ Urgent

★ Symptom

★ Disease

★ Symptom-Based Condition

Symptom-Based Management



- ★ Consider symptom-based management early to provide patients with relief, support and encouragement
- ★ Early interventions should include
 - Restoration of sleep
 - Management of pain

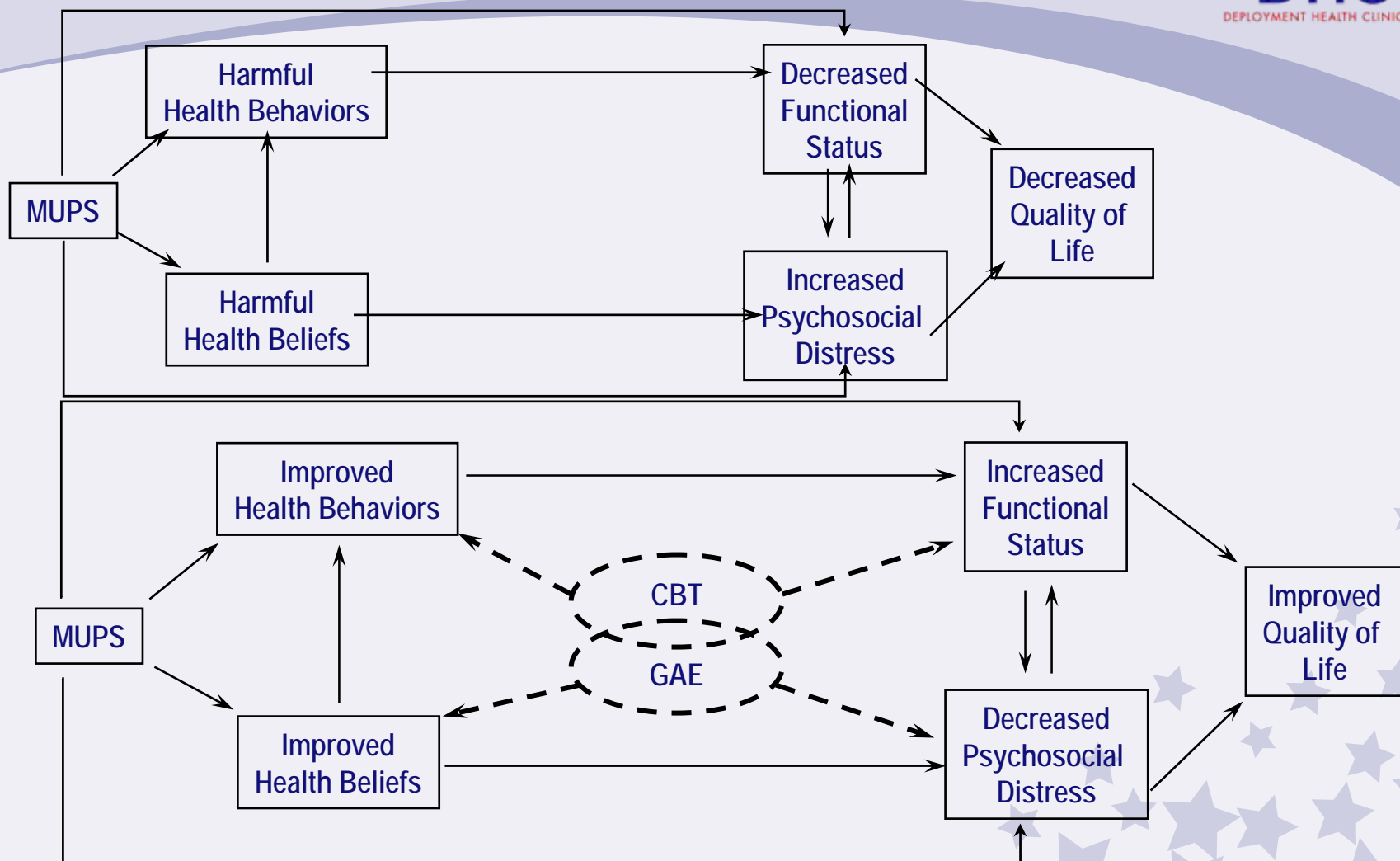
Non-Pharmacologic Therapies of Maximum Benefit for MUS



- ★ Cognitive behavioral therapy
- ★ Graded aerobic exercise



Impact of Disability and Symptoms on Quality of Life



What Is Cognitive-Behavioral Therapy (CBT)?



- ★ Not medically curative
- ★ Targets factors that perpetuate disability



Unexplained Symptoms

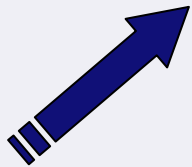
The Patient's Initial Model



"...so I feel bad..."

Symptoms

Illness

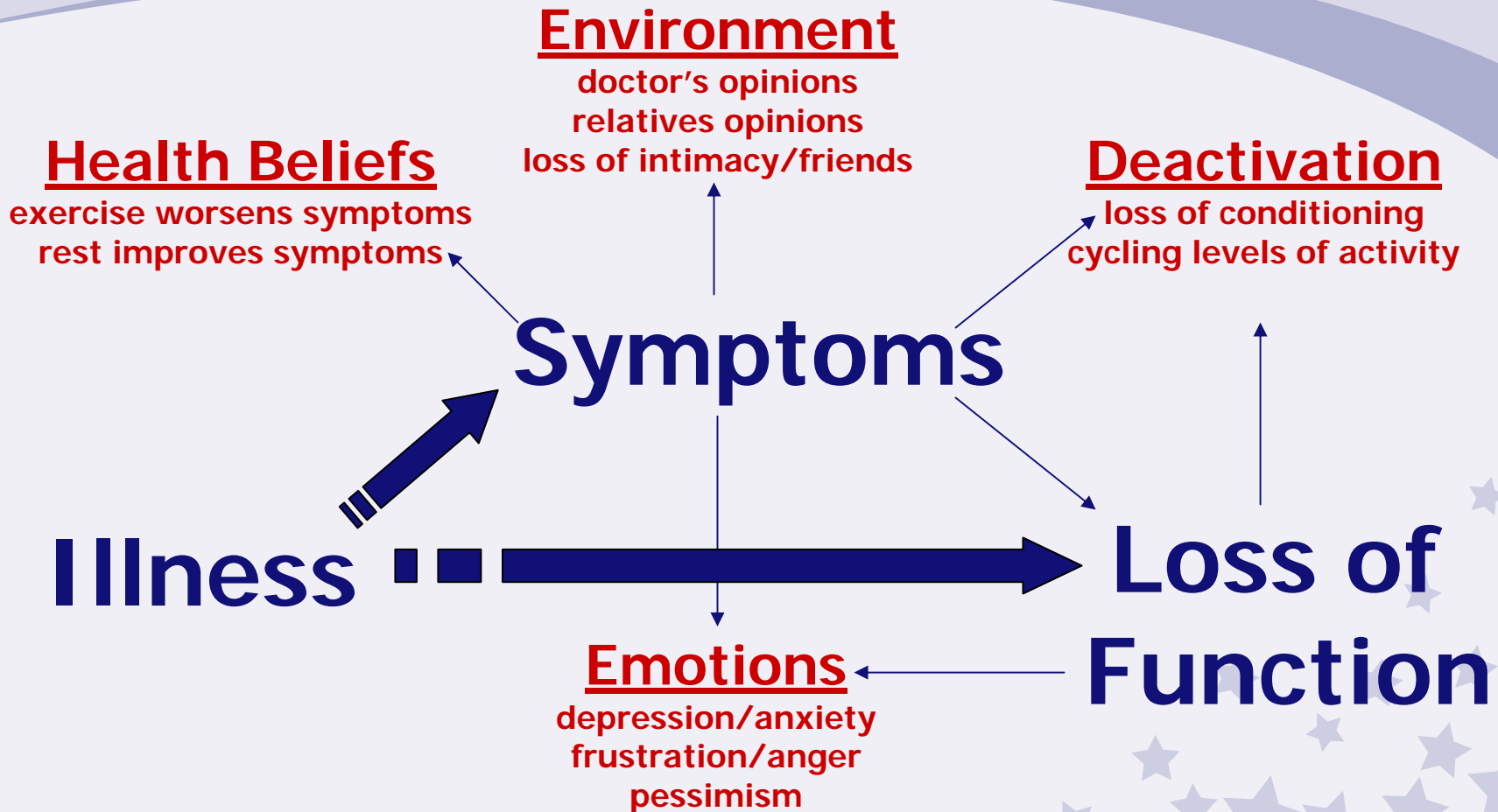


"[cause] made me sick..."

Loss of Function

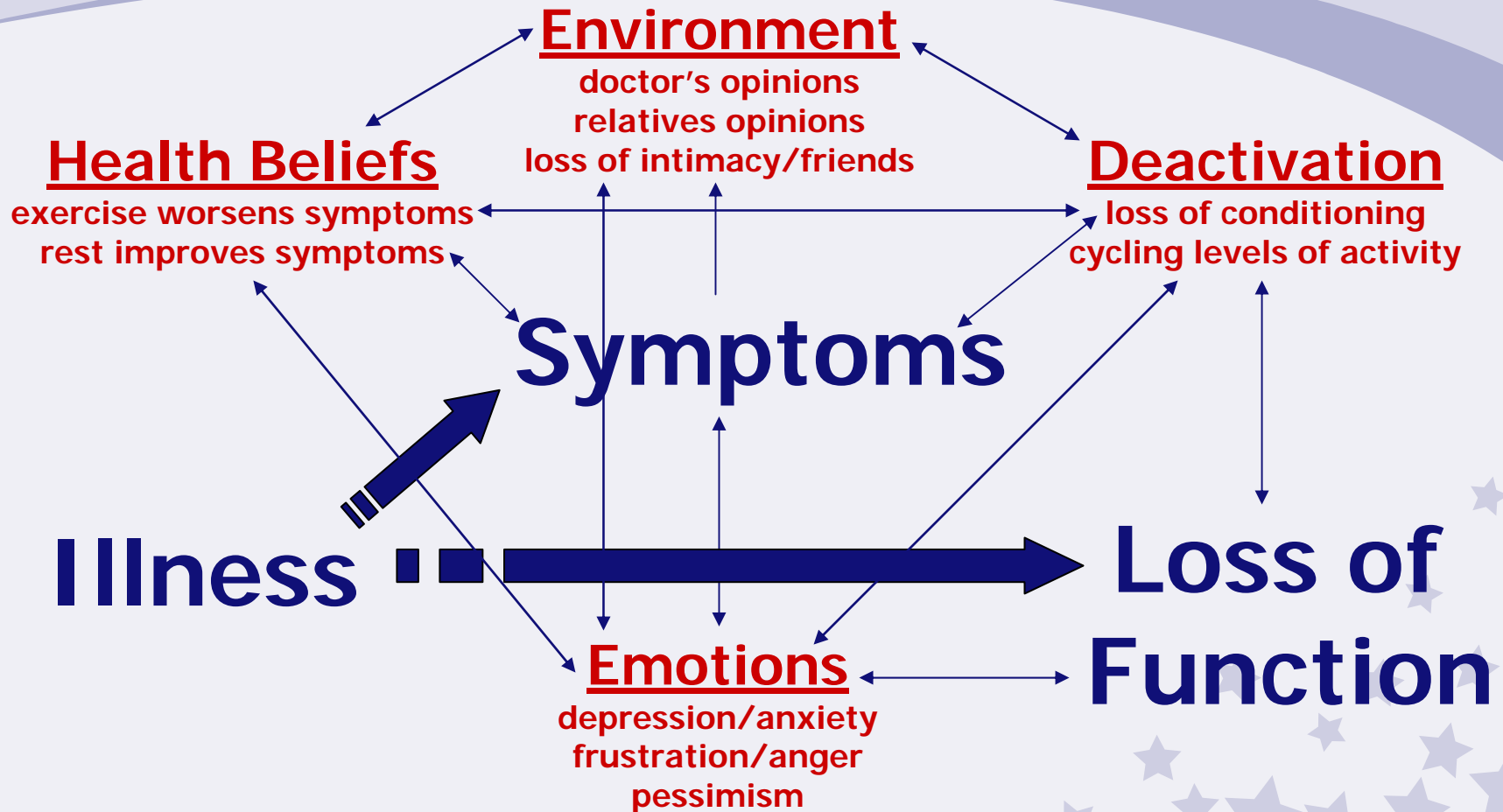
"...and I can't [activity]"

Unexplained Symptoms Expanding The Model



Unexplained Symptoms

Expanding The Model (cont.)



Common Cognitive Components



- ★ Examining assumptions
 - About pathogenesis
 - About appropriate management
 - About prognosis
- ★ Problem solving strategies
- ★ Relaxation strategies
- ★ Early symptom recognition

Common Behavioral Components



- ★ Behavioral activation strategies
- ★ Sleep hygiene
- ★ Leisure activity planning
- ★ Memory management skills
- ★ Goal setting
- ★ Relapse prevention

What Is Graded Aerobic Exercise ?



- ★ IT'S NOT: airborne physical training
- ★ IT IS: a program of gradually increasing physical activity -- usually involves leisure activities rather than "aerobics" per se
- ★ Guideline describes a sample program

Other Therapies for MUS

★ Possible Benefit

- Relaxation response training
- Therapeutic massage
- Acupuncture
- Stretching
- Biofeedback
- Hypnosis
- Chiropractic

★ Possible Harm

- Bed rest

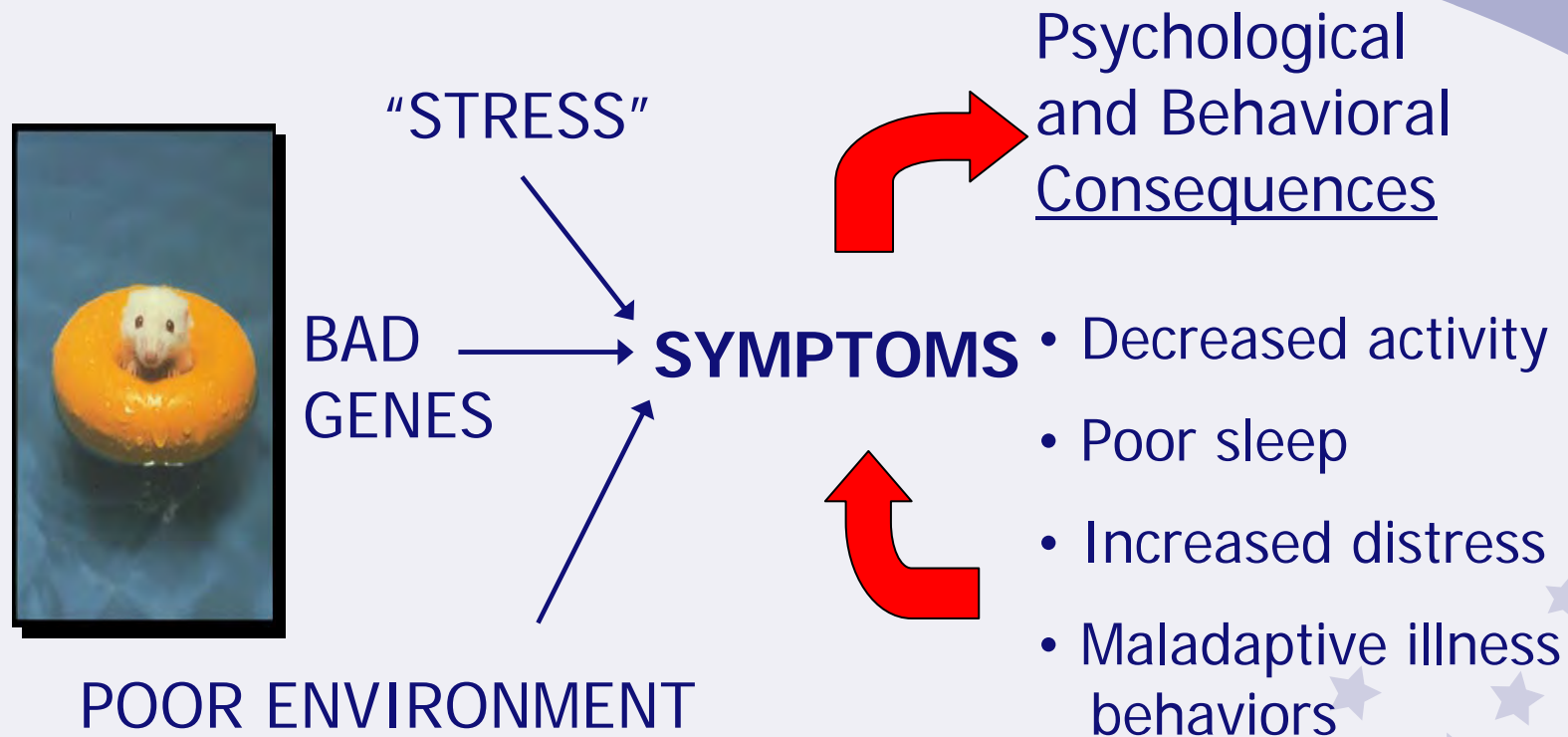
Pharmacologic Therapy



- ★ Use of pharmacologic therapy in the management of Fibromyalgia and Chronic Fatigue Syndrome
- ★ Review neurobiology of these illnesses



Dually Focused Treatment



Pharmacologic Therapies of Some Benefit for MUS



★ Tricyclic compounds

- Amitriptyline (Elavil) and Cyclobenzaprine (Flexeril) best studied
- Tolerability improved by giving single dose several hours before bedtime
- Start low, go slow. Begin with 5 or 10 mg and increase to 30-40 mg cyclobenzaprine or 50-70 mg amitriptyline
- Of most benefit in treating pain, insomnia; less improvement in fatigue

Pharmacologic Therapies of Some Benefit for MUS (cont.)



- ★ Other classes of neuroactive compounds
 - MAO inhibitors
 - Mixed serotonergic/noradrenergic compounds
 - SSRIs generally ineffective
 - Gabapentin (Neurontin) for pain
 - Tramadol (Ultram) for pain

Pharmacologic Therapies of No Benefit/Possible Harm for MUS



- ★ Corticosteroids
- ★ Immune-based therapies
- ★ Anti-infective therapies
- ★ Anti-allergy therapies
- ★ Fludrocortisone (Florinef)
- ★ Nutritional supplements
 - Magnesium, NADH, essential fatty acids

VA/DoD MUS-CPG Tool Kit

Contents



★ Provider Reminder Cards

- Key Points
- Pocket Guides
 - Assessment and Diagnosis
 - Treatment Options

★ Guideline Summary

★ Web Sites

★ Patient Informational Brochure

VA/DoD CLINICAL PRACTICE GUIDELINE MANAGEMENT OF MEDICALLY UNEXPLAINED SYMPTOMS (MUS): CHRONIC PAIN & FATIGUE

KEY POINTS CARD

- Establish that the patient has MUS.
- Obtain a thorough medical record.
- Minimize low yield diagnostic testing.
- Identify treatable conditions.
- Determine if the patient has Illness (CMI) or cognitive dysfunction.

A PATIENT WITH MEDICALLY UNEXPLAINED SYMPTOMS (MUS):

- Has unexplained symptoms after an appropriate assessment.
- May have been given one or more diagnoses that lack a well-defined disease explanation (e.g., idiopathic chronic fatigue, burning mouth syndrome, diffuse pain syndrome, dyspareunia, hypoglycemia, multiple chemical sensitivities).

Definition for CFS/Chronic Fatigue Syndrome:
Classically involves prolonged, persistent or relapsing fatigue that is not due to excessive exertion or the result of ongoing medical or psychiatric illness, and results in substantial reduction in previous level of activity.

HOW TO CHARACTERIZE SYMPTOMS

SYMPTOM	CHARACTERISTICS
ADDITIONAL SYMPTOMS	<ul style="list-style-type: none"> • Have been associated with sleep or mood? • Have they occurred in the past? • Have they occurred in the present? • Have they occurred in the future?
CHRONICITY	<ul style="list-style-type: none"> • Have they occurred for at least 6 months? • Have they occurred for at least 12 months? • Have they occurred for at least 18 months?
SEVERITY	<ul style="list-style-type: none"> • Have they occurred for at least 6 months? • Have they occurred for at least 12 months? • Have they occurred for at least 18 months?

VA/DoD Clinical Practice Guideline Management of Medically Unexplained Symptoms (MUS): Chronic Pain and Fatigue Pocket Guide

ASSESSMENT AND DIAGNOSIS

VA/DoD CLINICAL PRACTICE GUIDELINE FOR THE MANAGEMENT OF MEDICALLY UNEXPLAINED SYMPTOMS (MUS): CHRONIC PAIN AND FATIGUE

Guideline Summary

PRIMARY CARE

GUIDELINE SUMMARY

- Establish that the patient has MUS.
- Obtain a thorough medical history.
- Minimize low yield diagnostic testing.
- Identify treatable conditions (e.g., chronic pain, depression, anxiety, etc.).
- Determine if the patient can be treated (i.e., has two or more symptoms).
- Negotiate treatment options and provide appropriate patient and family education.
- Maximize the use of non-pharmaceutical treatments (e.g., cognitive behavioral therapy, graded aerobic exercise with rest, etc.).
- Empower patients to take an active role in their care.

PHARMACOLOGIC AGENTS FOR CFS/FM

Agent	Dose/Route	Indication	Adverse Effects	Comments
Antidepressants	See Table 1	Chronic pain, fatigue, mood, sleep	See Table 2	• The agent is used to treat the underlying condition.
Antipsychotics	See Table 3	Chronic pain, fatigue, mood, sleep	See Table 4	• The agent is used to treat the underlying condition.
Anticonvulsants	See Table 5	Chronic pain, fatigue, mood, sleep	See Table 6	• The agent is used to treat the underlying condition.
Anticholinergics	See Table 7	Chronic pain, fatigue, mood, sleep	See Table 8	• The agent is used to treat the underlying condition.
Antihistamines	See Table 9	Chronic pain, fatigue, mood, sleep	See Table 10	• The agent is used to treat the underlying condition.
Antacids	See Table 11	Chronic pain, fatigue, mood, sleep	See Table 12	• The agent is used to treat the underlying condition.
Antibiotics	See Table 13	Chronic pain, fatigue, mood, sleep	See Table 14	• The agent is used to treat the underlying condition.
Antifungals	See Table 15	Chronic pain, fatigue, mood, sleep	See Table 16	• The agent is used to treat the underlying condition.
Antiparasitics	See Table 17	Chronic pain, fatigue, mood, sleep	See Table 18	• The agent is used to treat the underlying condition.
Antivirals	See Table 19	Chronic pain, fatigue, mood, sleep	See Table 20	• The agent is used to treat the underlying condition.
Anticancer drugs	See Table 21	Chronic pain, fatigue, mood, sleep	See Table 22	• The agent is used to treat the underlying condition.
Immunosuppressants	See Table 23	Chronic pain, fatigue, mood, sleep	See Table 24	• The agent is used to treat the underlying condition.
Biologics	See Table 25	Chronic pain, fatigue, mood, sleep	See Table 26	• The agent is used to treat the underlying condition.
Other drugs	See Table 27	Chronic pain, fatigue, mood, sleep	See Table 28	• The agent is used to treat the underlying condition.

TREATMENT OPTIONS

PHARMACOLOGIC THERAPY INTERVENTIONS

NON-PHARMACOLOGIC THERAPY INTERVENTIONS

CHRONIC PAIN SYNDROME (CPS) THERAPY INTERVENTIONS

FATIGUE SYNDROME (FS) THERAPY INTERVENTIONS

VA/DoD Clinical Practice Guideline Management of Medically Unexplained Symptoms (MUS): Chronic Pain and Fatigue Pocket Guide

VA access to full guideline: <http://www.cpgm.va.gov/cpgm.htm>
DoD access to full guideline: <http://www.dodmilitary.com/cpgm.htm>
Sponsored & produced by the VA Employee Education System in cooperation with the Office of Quality & Performance and Patient Care Services and Department of Defense.

VA and MEDCOM Web Sites

Provider Tools



www.oqp.med.va.gov/cpg/cpg.htm

Clinical Practice Guidelines - Microsoft Internet Explorer provided by HA/TMA

Address: <http://www.oqp.med.va.gov/cpg/cpg.htm>

Clinical Practice Guidelines

Office of Quality and Performance

CPG

CARDIOVASCULAR

- Chronic Heart Failure (CHF)
- Hypertension (HTN)
- Ischemic Heart Disease (IHD)
- Dyslipidemia (LIPIDS)

ENDOCRINE

- Diabetes Mellitus (DM)

EYE

- Glaucoma

GENITOURINARY TRACT

- Benign Prostate Hyperplasia (BPH)
- Dysuria
- Erectile Dysfunction (ED)
- Pre-End Stage Renal Disease (ESRD)

MENTAL HEALTH

- Major Depressive Disorder (MDD)
- Psychoses (PSYCH)
- Substance Use Disorder (SUD)

MUSCULOSKELETAL

What's New!

- Post Operative Pain
- Chronic Obstructive Pulmonary Disease (COPD)
- Health Tips for CHE
- Chronic Heart Failure (CHF)
- Dyslipidemia (LIPIDS)
- Erectile Dysfunction (ED)
- Low Back Pain (LBP)

Clinical Practice Guidelines

Implementation of evidence-based clinical practice guidelines is one strategy VHA has embraced to improve care by reducing variation in practice and systematizing "best practices". Guidelines, as generic tools to improve the processes of care for patient cohorts, serve to reduce errors, and provide consistent quality of care and utilization of resources throughout the system. Guidelines also are cornerstones for accountability and facilitate learning and the conduct of research. The guidelines on this site are those endorsed by VHA's National Clinical Practice Guidelines Council.

NATIONAL CLINICAL PRACTICE GUIDELINES COUNCIL

U.S. Army MEDCOM Quality Management Office

CLINICAL PRACTICE GUIDELINES

To email comments, questions or concerns regarding Clinical Practice Guidelines or tool kits, click here.

What's New!

- Asthma
- Depression
- Low Back Pain
- Pain

One-Stop Ordering System for Clinical Practice Guideline Tool Kit Supplies

Visit our on-line shopping system available to Army and Air Force facilities to replenish supplies of the Clinical Practice Guideline Tool Kits. Order refill items for multiple CPOs at one time. Receive an email confirmation of your order with your order number and summary.

Click any card to start shopping now.

VA / DoD Guidelines and Tool Kits Available and Anticipated

Click here to view dates

CPG Metrics and Benchmarks

- FY04 Performance Plan between Deputy Secretary of Defense and Asst Secretary of Defense (DA)
- Entire Performance Plan
- Summary Table
- 2002 Health-Related Behavior Survey (among Military Personnel)

Military Healthcare System Population Health Portal (MHS Portal)

- Aggregated Army Data
- Trended Asthma Portal Data
- Trended Diabetes Military Portal Data

Fort Belvoir CHCOP Regulation

Thank you to Fort Belvoir for sharing their local CPQICP Regulation.

Diabetic Foot Symposium: State of the Art From Academia to Action Course

Click here for more information on this upcoming course sponsored by the VA.

Guideline Champion Information

Manual for Facility Clinical Practice Guideline Champions

Responsibilities of the National Clinical Practice Guideline Champion & Team Members.

www.qmo.amedd.army.mil/pguide.htm

Web Support for Post-Deployment Health Care *www.PDHealth.mil*



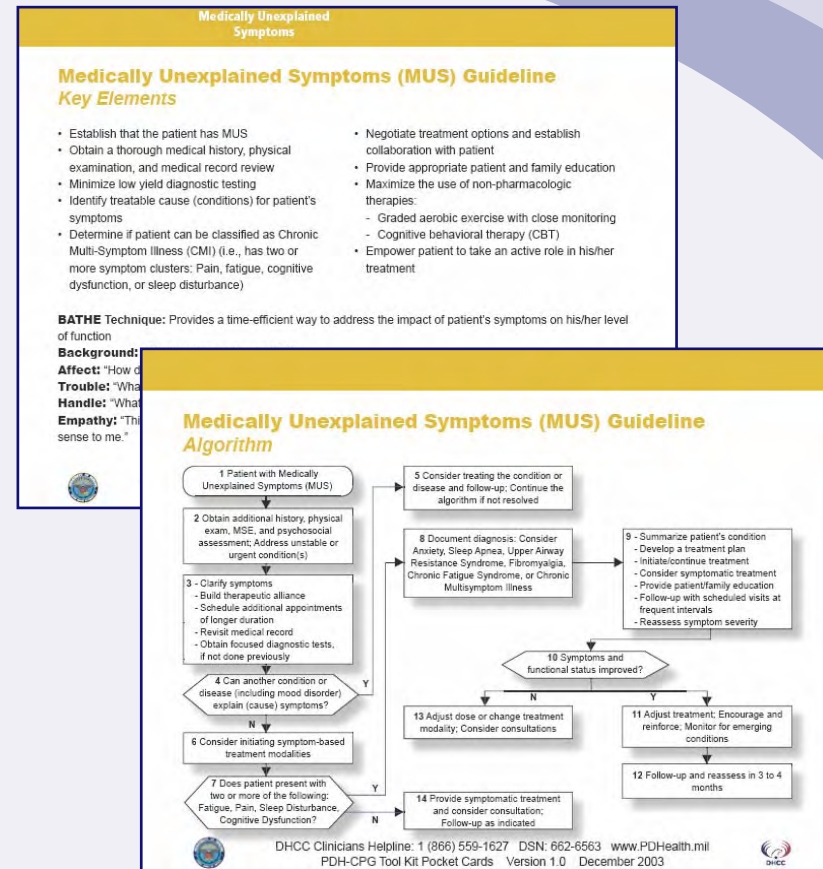
- ★ Information on deployments
- ★ PDH-CPG
 - MUS
 - MDD
 - PTSD
- ★ Specific diseases and emerging health concerns
- ★ Online clinical tools
- ★ Provider education and training
- ★ Patient education



DoD/VA Post-Deployment Health Clinical Practice Guideline (PDH-CPG)



- ★ Evidence-based guideline for the evaluation and management of patients with deployment-related health concerns/conditions in the primary care setting
- ★ Released in Jan 02
- ★ 3 Algorithms, including MUS
- ★ Toolbox with Provider Desk Reference Cards, including MUS

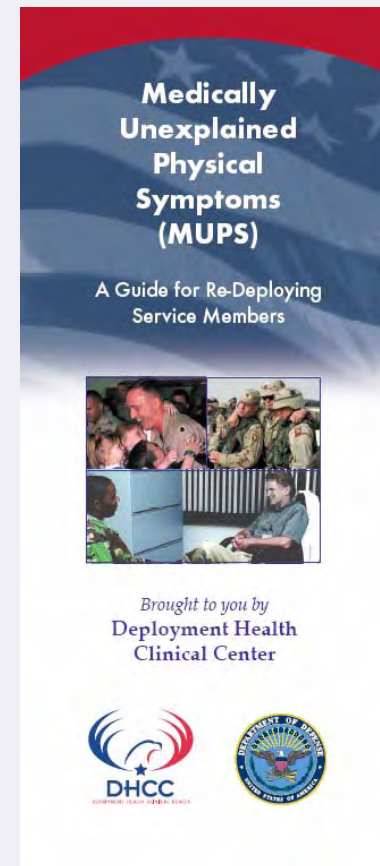


Medically Unexplained Symptoms

Patient Education Brochures



VA/DoD MUS-CPG Tool Kit
Available from the
MEDCOM web site:
www.qmo.amedd.army.mil



Available from the
DHCC web site:
www.PDHealth.mil

Key Elements of MUS-CPG



- ★ Establish the patient has MUS
- ★ Obtain a thorough medical history, physical examination, and medical record review
- ★ Minimize low yield diagnostic testing
- ★ Identify treatable cause (conditions) for patient's symptoms
- ★ Determine if patient can be classified as Chronic Multi-Symptom Illness (CMI)
- ★ Negotiate treatment options and establish collaboration with patient
- ★ Provide appropriate patient and family education
- ★ Maximize the use of non-pharmacologic therapies (Graded Aerobic Exercise and Cognitive Behavioral Therapy)
- ★ Empower patient to take an active role in his/her recovery

Questions, Information, Assistance



DoD Deployment Health Clinical Center

Walter Reed Army Medical Center

Building 2, Room 3G04

6900 Georgia Ave, NW

Washington, DC 20307-5001

202-782-6563

DSN: 662

Provider Helpline

1-866-559-1627

E-mail: pdhealth@na.amedd.army.mil

Website: www.PDHealth.mil

Patient Helpline

1-800-796-9699

Credit



★ This presentation was adapted in Jan 06
from the MUS-CPG Satellite Broadcast Jun 02